

The Future of Citizen Participation in the Electronic State*

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ABSTRACT

Agencies, not Congress, are the primary lawmakers in the American federal legal system. By law, the public has a right to participate in the making of agency rules. With the passage of the E-Government Act, administrative agencies are now required to use information and communication technologies to promulgate their rulemakings and to afford the public the opportunity to participate via the Internet. As currently envisioned, however, the move from rulemaking to electronic rulemaking will not realize the opportunity to improve participation to the full extent. Instead, the design of the screens through which people will interact with government are likely to make public participation less effective for citizens and produce comments that are less manageable for regulators. This Article argues that electronic rulemaking should focus on developing software and communicative methods embedded in that software to enable participative practices. To translate the right of participation into the practices of participation through the computer screen requires designing, not for individuals to communicate with government, but for participants to see themselves as part of a community engaged in rulemaking. By conveying a sense of the community of practice, the screen can strengthen engagement and promote participation in the comment process over time, rather than opening the floodgates to one stop "notice and spam." This Article supports this argument with proposed innovations – both technological and methodological – to improve participatory practices in electronic rulemaking.

I. ELECTRONIC RULEMAKING: NOTICE AND SPAM?

Rulemaking, the process by which the administrative state in the United States crafts the thousands of regulations¹ that govern every

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¹ Compared to 270 statutes passed each year by Congress, federal agencies promulgate between 4000-8000 rules every year (not including compliance orders). C.W. Crews, Jr., *Ten*

aspect of private and public life from air quality to transportation safety, has been hailed as “one of the greatest inventions of modern government.”² By law,³ citizens have a right to participate directly in the rulemaking process. Public participation is intended to improve the quality of rules and render regulatory rulemaking more legitimate and accountable.⁴ But the theory of public participation does not accord with its practice. Participation is largely indirect, mediated by interest groups. Such as it is, it generally comes too late in the process to be useful. Comments are wildly divergent in quality and quantity and hopelessly time-consuming for agency officials to digest. Frequently, public comment reading has to be outsourced for reading to third party consultants.

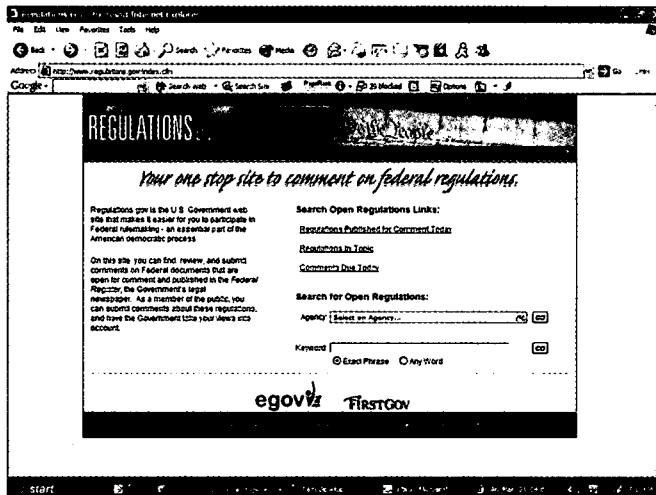


Figure 1 - Regulations.gov Current Interface

Thousand Commandments: An Annual Snapshot of the Federal Regulatory State, at <http://www.cei.org> (last visited Jan. 10, 2005).

² STEPHEN BREYER, REGULATION AND ITS REFORM 348 (1982)(footnote omitted), citing S. Rep. 96-1018, pt. 2, “Reform of the Federal Regulation,” Joint Report of the Senate Committee on Governmental Affairs and the Committee on the Judiciary, 96th Cong., 2d. Sess. (1980) at 51.

³ The Administrative Procedure Act, 5 U.S.C. § 500 et. seq. (2000), enacted in 1946, sets forth the basic elements of rulemaking and grants the public a statutory right to participate directly in the process.

⁴ For more on the theory of public participation and rulemaking, see Beth Simone Noveck, *The Electronic Revolution in Rulemaking*, 53 EMORY L.J. 433 (2004).

Now the crafting of regulations will shift from a paper-based to a fully electronic lawmaking process. Numerous federal agencies already exploit efficiency-gaining automation.⁵ Funding and impetus provided by the Electronic Government Act of 2002⁶ (E-Government Act) will accelerate the digitalization of rulemaking itself, including the practice of citizen participation. This redesign of administrative rulemaking as “e-rulemaking” augurs the end of autonomous agency practices and the beginning of centralization through automation. All rulemaking activity will be housed in a single website, **Regulations.gov**, (<http://www.regulations.gov>), under the direction of the President. The homogenization and digitization of rulemaking will have far-reaching consequences, including, as this Article argues, a weakening of the right to public participation. Not only is the opportunity not being realized to improve participation through new communications technology, but the design of the new interfaces for e-rulemaking are likely to make public participation less effective for citizens and less manageable for regulators.

This Article argues that it is not enough to have law mandate participation. Instead, the design of the software must enable participative practices – methods for “doing democracy” that build the skills and capacity necessary for citizens, experts, and organizations to speak and to be heard. Rulemaking, after all, is a communicative process involving a dialogue between regulators and those affected by regulation and among the community interested in the issues on the agency’s agenda. Rulemaking necessitates ongoing discussion and information exchange to produce the best-informed rules in the public interest. Unlike paper, the screen affords a participant the chance to see himself as part of that community engaged in rulemaking.

⁵ See Florida State University College of Law, *Notable Uses of the Internet in Federal Agency Decisionmaking*, at <http://www.law.fsu.edu/library/admin/admin2.html> (last visited Aug. 30, 2003).

⁶ E-Government Act of 2002, Pub. L. No. 107-347, 116 Stat. 2899. The legislation, passed by Congress in 2002, proposes to make it easier for citizens to interact with government, as well as streamline citizen-to-government transactions. Key elements of the Act include the institutionalization of electronic government initiatives, their organization and funding structure, establishment of an Office of Electronic Government under the authority of OMB, endorsement of cross agency initiatives such as E-Rulemaking, Geospatial One-Stop, E-Records Management, E-Authentication (esp. E-signatures) and Disaster Management, and provisions for use of technology by federal courts and federal agencies. For a summary, see H.R. 2458, 107th Cong. (2002), at <http://thomas.loc.gov>; see also Joshua Bolten, *Implementation Guidance for the E-Government Act of 2002, Memorandum to All Department and Agency Heads*, Office of Management and Budget Memorandum 03-18 (Aug. 1, 2003), at <http://www.whitehouse.gov/omb/memoranda/m03-18.pdf>.

Through the screen, he can understand who is involved, where in the timeline of the process things stand, how he relates to others, which experts have contributed information, and how many people are for and against. By having a sense of the community of practice, the screen can strengthen engagement, encourage continuing education, and promote not simply “one stop” commenting but ongoing involvement in the work of the agency over time. The screen offers myriad affordances, which could, if exploited, enhance the practice of participation.

Yet, current plans for e-rulemaking do nothing of the kind. They fail both to focus on the practices of rulemaking and to embed those practices into the software code. Building software necessitates embedding the desired practices into the code.⁷ By virtue of having to “translate” rulemaking into a set of software specifications, agency officials should have to focus on its practices, the precise how-tos of rulemaking. Who speaks and when, and who has access to which information will eventually be controlled by technology. E-rulemaking could enable more participatory forms of decision-making⁸ in the administrative state. But there is no evidence, at present, that the software will encode participatory practice.

Technology consultants, not lawyers or policymakers, build the tools. With an eye toward improving efficiency, they simply “put paper on-line” and digitize the rulemaking process without regard to impact on public engagement. Instead of focusing on how technology can be used to manage the communicative processes of participation, current efforts are focused on exploiting the storage capacity of new tools to centralize document management (not surprisingly given that in 2002 the size of the *Federal Register* of rules swelled to 75,606 pages) (*See Fed. Reg.* 2002). But this directs resources away from the

⁷ Beth Simone Noveck, *Designing Deliberative Democracy in Cyberspace: The Role of the Cyber-Lawyer*, 9 B.U. J. SCI. & TECH. L. 1, 8 (2003); *see also* Clay Shirky, A Group Is Its Own Worst Enemy, Speech at the O'Reilly Emerging Technology Conference (April 24, 2003) (discussing “social software”) at http://www.shirky.com/writings/group_enemy.html (last visited July 22, 2003).

⁸ Participatory democracy emphasizes the importance of direct citizen involvement in decision-making. Distinct from direct democracy, participatory democracy refers to engagement that goes beyond mere polling or voting to include processes that allow citizens to participate in setting the agenda and deliberating it. *See* Benjamin R. Barber, *Three Scenarios for the Future of Technology and Strong Democracy*, 113 POL. SCI. Q. 573, 585 (1998); *see also* BENJAMIN BARBER, *STRONG DEMOCRACY: PARTICIPATORY POLITICS FOR A NEW AGE* (1984); Robert A. Dahl, *Procedural Democracy*, in *CONTEMPORARY POLITICAL PHILOSOPHY: AN ANTHOLOGY* 109-127 (Robert E. Goodin & Philip Pettit eds., 1997).

interactivity of the technology and shifts the center of attention from active participation toward passive information gathering. The focus is entirely on the organization of discrete documents, rather than on the interpersonal relationships of rulemaking.

The screenshot shows a web browser window titled 'Regulations.gov - Internet Explorer'. The address bar displays a URL from the Regulations.gov website. The main content area contains a form for submitting a comment. The form fields are as follows:

- Title:** A text input field.
- First Name:** A text input field.
- Last Name:** A text input field.
- Organization Name:** A text input field.
- E-mail Address:** A text input field.
- City:** A text input field.
- State:** A dropdown menu with '(choose state)' as the selected option.
- Country:** A dropdown menu with 'UNITED STATES' as the selected option.
- Comments:** A large text area for entering the comment.
- Remaining characters:** A small box showing '4000'.
- Attachment:** A text input field with a 'Browse...' button next to it.
- File Type:** A dropdown menu with 'Acrobat PDF' as the selected option.
- Buttons:** 'Attach File', 'Continue', 'Clear', and 'Cancel/Exit'.

Figure 2 - Regulations.gov Comment Interface

The mere fact that technology should and could be structured to democratize rulemaking does not mean it will be. Historical distrust of participation coupled with resistance on the part of the agencies⁹ to centralizing administrative procedure¹⁰ (and a lack of adequate

⁹ U.S. General Accounting Office, GAO-03-901 Electronic Rulemaking: Efforts to Facilitate Public Participation Can Be Improved 5 (2003), *available at* <http://www.gao.gov/new.items/d03901.pdf>.

¹⁰ A rush to beat the Europeans and various Asian governments to dominance in e-government service offerings creates an added incentive. *See, e.g.* Ministerial Declaration on E-Government, July 8, 2003 (Lucio Stanca, Italian Minister for Innovation and Technology, issued a ministerial declaration, agreed by the 30 EU, EFTA and accession countries, on behalf of the Italian Presidency, proposing concrete measures to accelerate the move to e-Government), *at* http://europa.eu.int/information_society/eeurope/egovconf/doc/ministerial_declaration.pdf; *see also* Singapore E-Government Action Plan (2000-2003) (\$1.5 billion earmarked to delight customers and connect citizens through a networked

funding)¹¹ is leading to a race to the bottom, an implementation of a procrustean and inadequate system. Putting citizen participation online makes the cost of speech cheaper.

This opens the floodgates¹² to a quantity of undifferentiated public input – “notice and spam” instead of notice and comment – that exacerbates regulatory fatigue.¹³ Imagine a draft rule accessible via the Internet with a blank text box and button “click here to comment.”¹⁴ Putting the notice-and-comment process as-is on the Internet so that anyone can post a comment to a proposed rulemaking reduces the costs¹⁵ of participation.¹⁶ Unifying disparate agency

government), at <http://www.egov.gov.sg/PlansandStrategies/e-GovernmentPlans/e-GovernmentActionPlan/>.

¹¹ Despite the Bush administration’s request for \$45 million to support the much-touted E-Government Act, the U.S. House Appropriations Committee approved only \$1 million for the first year saying the White House had not justified the spending request. Roy Mark, *House Panel Approves Deep E-Gov Funding Cuts* (July 28, 2003), at <http://dc.internet.com/news/article.php/2240881>.

¹² Stuart W. Shulman, *An Experiment in Digital Government at the United States National Organic Program*, 20 AGRIC. & HUM. VALUES 253, 257 (2003).

¹³ Rebecca Fairley Raney, *E-Mail Finds the Rare Ear in Congress*, N.Y. TIMES, Dec. 13, 2001, at G11. (“Ill equipped to cope with the deluge of correspondence that the Internet has brought, many Congressional offices no longer disclose e-mail addresses to the public. And both staff members and lobbyists say that e-mail is far less successful than faxes, phone calls or letters in reaching and influencing legislators.”). Other countries have reported a significant increase in the amount of feedback received from citizens since the publication of public servant e-mail addresses via the Web.

¹⁴ The USDA received over 275,000 public comments in response to the first proposed rule on marketing standards for organic food. Stuart W. Shulman, *Citizen Agenda-Setting, Digital Government and the National Organic Program*, prepared for delivery at the 2000 Annual Meeting of the American Political Science Association, Marriot Wardman Park, Washington, D.C. (Aug. 31 – Sept. 3, 2000) (available at <http://erulemaking.ucsur.pitt.edu/doc/papers/apsa2000.pdf>).

¹⁵ In 1972, participation in a major FTC case would have cost an intervenor \$100,000 with the cost of participation in an FDA rulemaking estimated at \$30,000-\$40,000 at that time. Roger Cramton, *The Why, Where and How of Broadened Public Participation in the Administrative Process*, 60 GEO. L. J. 525, 538 (1972).

¹⁶ This is one reason why the Regulatory Flexibility Act, which aims to provide small business entities with real opportunity to participate in rulemakings that are likely to affect them, calls for soliciting and receiving public comment over computer networks. Regulatory Flexibility Act, 5 U.S.C. § 609(a)(4) (1980).

procedures into a centralized “portal” removes the hurdle of learning differing practices, making it easier for a wider array of citizens to participate, not just those interest groups with the know-how of specific agency cultures. Automating the comment process also makes it easier for interest groups to participate by using bots – small software “robots” – to generate instantly thousands of responses from stored membership lists. Moving to a rationalized on-line system levels the playing field and lowers the bar to engagement. Suddenly, anyone (or anything) can participate from anywhere – and that is precisely the potential problem.

At this critical juncture at the launch of electronic rulemaking, this Article argues for developing a variegated set of e-rulemaking software tools structured to coordinate participation by building rulemaking communities of practice. Technology alone is not enough. Rather, technology that embeds methods of interpersonal communication and information exchange into the tools is necessary to connect participants to each other, to the necessary information, and to the process. I call this methods-plus-technology “speech tools.” Speech tools *structure* and *limit* communication¹⁷ to make it manageable and to render visible the relationships within the rulemaking process.

Imagine if the software offered a graphical scatterplot¹⁸ of comments to display visually the range of opinions among commenters, or if the process reflected by the software allowed a commenter to “sign onto” another comment rather than generating a duplicative submission. The design of the software should be employed to enhance participation and encourage ongoing engagement.

The lessons of e-rulemaking are relevant to all attempts to integrate technology into the public sector. Technology should be employed to strengthen engagement. After all, courts cannot mandate participation unless we use the screen better to enable the practices of participation. If we care about strengthening citizen-centered e-democracy, rather than just client-centered e-government, those who understand and care about democracy – not just technologists – must be involved in

¹⁷ In earlier work, I have written about the way in which rules and structure embedded in software produces successful group deliberation. See Noveck, *supra* note 7.

¹⁸ Netscan Project Site at [http://netscan.research.microsoft.com/about/\(chart and bar views of newsgroups\)](http://netscan.research.microsoft.com/about/(chart and bar views of newsgroups)); see also Martin Dodge, *The Netscan Project: Mapping the Social Geography of Usenet News*, MAPPA.MUNDI MAGAZINE, at http://mappa.mundi.net/maps/maps_019/.

designing the technology. Without this kind of thought-through “civic innovation,” the theory of electronic democracy will never become practice.

To that end, Part Two of this Article proposes a set of cost-effective, easy-to-implement speech tools that revise the interfaces of the existing notice-and-comment process. These speech tools are designed with an eye toward enhancing participation in the basic rulemaking process. They exploit the visual interface to enhance the participatory and deliberative nature of the process. But as e-government scholar Jane Fountain notes, “decisionmakers have used information technology in ways, however innovative, that leave deeper structures and processes – such as authority relations, political relations, and oversight processes – undisturbed.”¹⁹ Ideally, e-rulemaking should go beyond notice-and-comment, which was designed for a paper-based world, and exploit opportunities to enhance on-line deliberation and more robust forms of interpersonal communication. Technology can be employed to empower rulemaking communities of practice and engage the public to a greater extent than ever before in making rules in the public interest. Part Three, therefore, proposes a set of methodological innovations to deepen participation by translating empirically tested processes for deliberation to the Web for use with electronic rulemaking.

2. INNOVATIONS: NEW TOOLS FOR RULEMAKING

2.1. THE NOTICE PROCESS

Under the Administrative Procedure Act (APA), rulemaking has two statutorily defined steps leading up to the implementation of a rule: notice and comment.²⁰ Notice provides the informational prerequisite to participation. Without knowledge of a proposed rule’s existence, participation is impossible. Notice also provides an opportunity to become informed and to shape a reasoned opinion prior to commenting.

Initially, in the rulemaking process, the agency is trying to develop a policy approach in response to a legislative mandate. To do so

¹⁹ JANE FOUNTAIN, *BUILDING THE VIRTUAL STATE: INFORMATION TECHNOLOGY AND INSTITUTIONAL CHANGE* 19 (2001).

²⁰ Subsequent publication of the rule upon its enactment is also required. The Administrative Procedure Act, 5 U.S.C. § 553(b) (2000).

requires identifying the problem(s) and weighing a range of possible solutions. This is the opportunity for the agency to become expert in seat belts and fuel efficiency or solar power, to understand the affected constituents and their interests, and to preview the debate and rancor that the issue is likely to provoke during a rulemaking. The early stages of rulemaking also present the opportunity for the agency to determine its priorities and set the agenda for rulemaking under the legislation. Early notice provides the opportunity for the agency, stakeholders, and the public to identify the affected and interested parties and begin to develop a deliberative community to participate in crafting any subsequent rules. Currently, notice comes at a point in the process when the identification of the problem and the draft solution are already a *fait accompli*. News of a “notice of proposed rulemaking” (NPRM) is only then published on paper and on-line. Although agencies are responsible for publishing notice of a rule and its reply date, innovation in the notice process should be geared toward ongoing efforts to empower and enlarge the community of practice²¹ participating in rulemaking on specific issues. Competing sources of opinions and information must be allowed to flourish and inform the process. In other words, where possible, notice should exploit the screen to go beyond the statutory formality of announcing a rulemaking name and date, and instead should communicate as much information as possible to inform participation.

The design of notice tools should be premised on the following ideas: 1) providing notice means delivering information in a format useful to the intended recipients for informing participation; 2) among recipients are non-expert, individual citizens; 3) information is successfully disseminated among interested communities who will, in turn, communicate with their participants; 4) information should be tied to the social context of communications in rulemaking and this is successfully accomplished; and, 5) improved use of the computer screen will facilitate connecting notice to the substance of the rulemaking and the people involved in it.

What follows are a series of examples of what might be done to improve the current process. This list is neither definitive nor exclusive and serves merely to illustrate how much is, in fact, possible.

²¹ Etienne Wenger, R. McDermott and W.M. Snyder, *CULTIVATING COMMUNITIES OF PRACTICE* 4 (2002).

2.1.1. SYNDICATING NOTICE

At present, the notice requirement channels information to a very limited number of locations accessible to only a few players. Notice is posted on an agency website, published in the *Federal Register*, or distributed via listserv to a handful of agency “regulars” who subscribe. Enter technology. With Rich Site Summary (RSS) feeds,²² the agency no longer has to limit itself to publication of notice in the *Federal Register*, on the agency website, or on a handful of federal government websites. Every time the Department of Transportation (DOT) promulgates a new draft and posts it, notice could automatically be sent, not only to a DOT listserv²³ serving a few hundred subscribers, but published to a variety of trade publications, university websites, non-governmental organizations, and other civic groups, thereby providing a massive audience with notice of the proposed rulemaking and stimulating a much wider civic conversation about the implications of the rulemaking. Again, if these locations are cultivated as civic communities participating in the process, news should regularly flow from the agency to the community and back again. RSS can be used to report on discussions, studies, and related information, in addition to merely providing notice of proposed rulemaking. It could also be posted to the related websites of every state and municipality, taking advantage of the fact that most Americans intersect with government at a local, rather than a federal, level. After all, state and local governments are frequent participants in the process themselves.

Ernest Gellhorn called over thirty years ago for publication of notice to the media and trade associations.²⁴ Yet we are only just beginning to

²² The evidence is mounting that e-mail is no longer an efficient means for ethical publishers to reach subscribers, and subscription technologies like RSS are preferred. RSS enables a content publisher to syndicate its headlines to another website. RSS allows potential readers of a Web site to view part of its content—typically headlines and short blurbs—without having to visit the content directly (unless they want to click through to it). Viewing is done with a piece of software separate from the Web browser, the RSS aggregator, which the consumer uses to subscribe to “feeds” produced by favorite Internet publishers. The feeds are constantly updated as the publishers add new content. See <http://www.webreference.com/authoring/languages/xml/rss/intro/> (last visited Jan. 16, 2005).

²³ The DOT listserv is available at <http://dms.dot.gov/emailNotification/index.cfm>. Examples of other agencies with listservs include the EPA and the FCC.

²⁴ See Ernest Gellhorn, *Public Participation in Administrative Proceedings*, 81 YALE L.J. 359, 402 (1972) (“Coverage in the news media is perhaps the most effective way of reaching the average citizen, and public interest groups and agencies should make special efforts to encourage reporting of their activities. Factual press releases written in lay language should

realize this vision. Such an innovation would provide the informational basis for interest groups to survey and engage their own membership.

2.1.2. VISUAL NOTICE TOOLS

Participants should be able to save notices to a “MyRulemaking homepage.”²⁵ This would be a place to come back to for reference. A horizontal bar graph, for example, might display how much time has elapsed in each comment process. Over successive days, participants can track the progress of various rulemakings by clicking on the visual representation marked “Notices” on his homepage. On the MyRulemaking homepage, participants might save notices, documents, discussion transcripts, and contact lists, as well as view a history of their participation. With such improvements, “notice” will not be an isolated event but part of a web of informational resources connecting the participant, the issues, and other participants. An events list might show news of comments posted in response to a comment posted by the owner of a page. The MyRulemaking homepage would, at once, allow the person to organize information in a way that makes sense for that individual and, at the same time, create a sense of the collective of which he is a part. He would see himself as part of a rulemaking community and process.

2.1.3. SEARCHING PARTS OF A RULE

Currently, draft rules are posted with the notice in their entirety, each one as a single document. If the technology were used to its fullest, citizens could search parts of rules and view links between the rule, the authorizing statute, and scientific data supporting each part of the rule. The rule would be a piece of a larger informational fabric connecting authorizing legislation to related rulemakings past and present.

2.1.4. RULE SUMMARIES AND RULE QUESTIONS

Previously, agencies published either the text of the proposed rule or a summary of the rule in the *Federal Register*.²⁶ The

explain the significance of the proceedings and the opportunities for public participation.”) (footnote omitted).

²⁵ The idea for this innovation was proposed by members of the Fall 2003 Seminar on Law, Technology, and Democracy at New York Law School. For postings of class projects and a syllabus, see <http://www.nyls.edu/pages/1653.asp> (last modified Mar. 29, 2004).

²⁶ There was a preference for printing the summary instead of the rule itself. The Attorney General’s manual for compliance with the APA advised agencies against publication

Administrative Procedure Act (APA) provides that notice of a proposed rulemaking include "either the terms or substance of the proposed rule or a description of the subjects and issues involved."²⁷ If publishing electronically, an agency does not have to choose; it can publish both. The agency can also offer summaries in both plain English and technical language, as well as summaries both of the basis for and the likely implications of a given rule. In addition, e-rulemaking tools can be designed to target notice better. The tools should allow a rule writer to generate a list of questions in response to which it is particularly interested in receiving comments. For example: "We are looking for guidance on the following ten issues on which there is conflicting data." Agency officials frequently ask for such specific feedback and the practice can be institutionalized through software, costlessly encouraging rule writers to be specific and stimulate the public to respond with the most relevant information.

The above are simple examples of powerful information management strategies that marry the logic of participative practice to current technological know-how.

2.2. THE COMMENT PROCESS

The comment process is intended to inform the rulewriting process with information from the public not otherwise available to the agency. In addition, it opens a channel of communication among those interested in a particular area of policy, not only between the agency and those citizens and groups but among them. The comment process provides an opportunity to hear what others are thinking and why, to identify policy problems and potential solutions to them, and

of the actual text, suggesting that it would only serve to confuse the public. U.S. DEP'T OF JUSTICE, ATTORNEY GENERAL'S MANUAL ON THE ADMINISTRATIVE PROCEDURE ACT 29 (1947), available at <http://www.oalj.dol.gov/public/apa/refrnc/ag03.htm> ("It is suggested that each agency consider the desirability of using [a description of the subjects and issues involved] if publication of a proposed rule in full would unduly burden the *Federal Register* or would in fact be less informative to the public."). Indeed, the APA itself provides for omission of notice altogether where the agency has good cause or such notice would be "impracticable, unnecessary, or contrary to the public interest." The Administrative Procedure Act, 5 U.S.C. § 553(b)(3)(B) (2000). Because notice is meant to serve as the basis for participation, the thought is that notice should guide citizens to the most relevant information. See, e.g., *AFL-CIO v. Donovan*, 757 F.2d 330, 338 (D.C. Cir. 1985) (striking down proposal to amend regulation because agency had published entire regulation without indicating sections to be amended). The final rule is meant to be the "logical outgrowth" of the notice. See, e.g., *Shell Oil Co. v. EPA*, 950 F.2d 741, 750-52 (D.C. Cir. 1991).

²⁷ The Administrative Procedure Act, *supra* note 21.

to air grievances both in an immediate and in a deliberative and reasoned way.

Technology, if designed with participation in mind, could make the comment process more informative and manageable for regulators and, at the same time, render it more relevant and deliberative for citizens. “Click Here to Comment” is a potential travesty for the democratic process, which might be averted through relatively minor design adaptations without changing organizational practice at the agency level.

The following innovations to the comment process are designed, first, to be cost effective. Second, they shift the emphasis from the comment as a stand-alone information object to something more connected to the rule, the other comments, and the community involved in shaping it. Third, these innovations more accurately label information to make it more useful. Finally, common to these innovations is a focus on enabling conversation among members of the rulemaking community of practice. Essential to building participation, as I argued above for notice, is to use the visual and interactive quality of technology to connect the comment to the rulemaking process and situate the comment within the context of other comments and the people who make them.

2.2.1. RULEMAKING LIBRARIES

At present, rulemakings are very difficult to find. Individual agency websites are labyrinthine while the new regulations.gov portal still has only limited search capabilities and does not index all rulemakings. One step toward facilitating better comments is to ensure that rulemakings are easily located. Those interested in the process must be able to find rulemakings by subject matter—by community of interest—and not simply on a document-by-document basis. Eventually, citizens will be able to search both the draft texts and other comments by means of natural language queries. But in the interim, information and communication technologies can still make the process more accessible. If rules are catalogued by means of a consistent set of searchable index terms,²⁸ citizens can search them

²⁸ The notion of using a consistent set of content descriptors to self-label content draws on the experience of labeling Internet content in the context of filtering and child protection. The underlying notion is to allow content creators, who are in the best position to evaluate their content, to label themselves and, at the same time, to use a consistent set of labels to enable end-users to search content easily on the basis of those keywords. The number of labels has to be adequate to describe all possible content in the system, yet not too many so as to overwhelm the user. For more on self-labeling systems, see Jack M. Balkin, Beth S.

more easily. It is much simpler to search for all rules relating to "tobacco and firearms" than it is to search by agency or by rule number.

Each title of the *Code of Federal Regulations* (e.g., "Banking" or "Telecommunications" or "Transportation") should have its own set of content descriptors or content labels (XML-embedded tags). Each set of descriptors would be a taxonomy long enough to describe a rule adequately, yet not so long that a user would be unable to scan it as part of a drop-down menu. These taxonomies will function as a more flexible indexing scheme to organize, not only rules, but all the documents relating to them. Alternatively, instead of a text-based list, topics might be searched visually through a map of related topics which a user can navigate to find subjects of interest.

These taxonomies could be used not only to index draft and final rules, but to catalogue other documents in the docket as well. A user may be interested in all of the documents relating to a specific rule, and she knows the rule number, but she may also be interested in all scientific data in the system relating to clean air or truck safety regardless of the specific rulemaking. The descriptive terms in each of the taxonomies would correspond to electronic "meta-tags"²⁹ that would be embedded in each document, making it easily retrievable without the need for natural language searching. A standard indexing scheme allows documents to be organized in various useful ways: by document number, by date, by subject matter, by personal preference, and by group ranking.

2.2.2. JOINING A COMMENT

Tools could be employed to allow citizens to "sign onto" a comment by endorsing its content without necessarily suggesting any affiliation with the author. For example, a hyperlink might be dragged and dropped from one comment into another. Even better, comments

Noveck, & Kermit Roosevelt, *Filtering the Internet: A Best Practices Model*, in PROTECTING OUR CHILDREN ON THE INTERNET: TOWARDS A NEW CULTURE OF RESPONSIBILITY 199 (Jens Waltermann & Marcel Machill eds., 2000).

²⁹ For a definition, see HARRY NEWTON, NEWTON'S TELECOM DICTIONARY: THE OFFICIAL DICTIONARY OF TELECOMMUNICATIONS AND THE INTERNET 500 (19th ed. 2003) ("[A] meta tag is an optional HTML coding that is used to specify information about a Web document. The information provided in a meta-tag is used by search engines to index a page so that someone searching for the kind of information the page contains will be able to find it. A Web page author uses these tags to help his or her page get noticed when an Internet surfer queries a search engine for a particular keyword or topic.").

could reference whole clusters of comments, offering so-called “social bookmarks”³⁰ to relevant discussions. This referencing would serve several purposes: it would reduce the quantity of comments while providing an opportunity to participate; it would enable commenters to be more deliberative and responsive to one another; and it would deepen the informational resources available to the community by linking together relevant comments across rulemakings on a particular topic.

2.2.3. COMMENTING ON WHOLE OR PART

In the next generation of e-rulemaking tools, agencies should be able to segment a rule to allow for comment on a specific part as well as on the whole. A commenter does not necessarily have to choose; she can offer a comment on the rule in its entirety and flag particular sections of the rule for revision. In that way, rule writers can get a sense of which parts of the rule are provoking the greatest ire. They can review comments on a given part and reserve reading of other comments for later. Citizens can also limit their reading of comments to those on a particular part of the rule. This kind of segmentation makes particularly good sense when the rule is long, complicated, technical, and involves diverse issues. The rule writer should be able to segment the rule, labeling individual sections for comment. When reading the rule, these sections would be clearly delineated for the viewer, and she can select the subsection to which her comment applies. Commenters, in turn, would be able to suggest new subsections or categories for comment, which can be proposed, accepted by the rule writer, and incorporated into the comment interface. These simple design modifications would ensure that comments are directly responsive to each other and to the rule.

2.2.4. COMMENTING ON SUBSTANCE AND FORM

Citizens should have the option, for each section of a draft rule, to comment on form, or substance, or both. A commenter might have a proposal for improving the language with a suggested textual amendment and the rationales to support such a change. Proposals as to form—that is, those suggesting merely linguistic changes—might be separated from proposals as to substance to allow for more useful processing. A commenter could select a line of text and click on

³⁰ Social bookmarks allow the user to mark whole lists of links. See, e.g., del.icio.us, at <http://del.icio.us> (last modified Apr. 1, 2004).

“Propose Amended Language” which would bring up an interface with two boxes marked “New Text” and “Reasons for Change.” By offering options for types of participation, such a tool might capture useful ideas that would otherwise be lost. This bifurcation of form and substance should, once again, create an incentive to participate. An icon of a pen might be used to label form-comments while an icon of a book might be used to flag substance-comments for easy viewing.

2.2.5. SUPPORTING DATA

In order to lend credibility to the comments as well as to inform the rulemakers and the public, comments should ideally be both informed and informative and supported by reasons, not only to lend credibility to the comments, but also to provide additional sources of information to educate rulemakers and the public. That information may be rhetorical or it may be in the form of legal precedents, scientific data and studies, mathematical algorithms and statistical analyses, multimedia simulations, or even two- and three-dimensional models. To promote this kind of information-rich comment, the interface should permit inputting of data in support of a point. Again, this modification does not require costly technology, just better design.

At the simplest level, the e-rulemaking website might provide conversion tools to render all two-dimensional data as .pdf files regardless of the original format and then provide a free link to download the .pdf software reader. A more robust version would ensure that the end user could “play with” the data without corrupting the original file. Furthermore, when the commenter wishes to submit a three-dimensional object, such as a tire tread in support of a rulemaking regarding the safe width of tires, or a plastic architectural model in opposition to a rule regarding door-openings that comply with the Americans with Disabilities Act (ADA),³¹ the commenter should have to file a comment using the on-line interface. The e-rulemaking website would provide a matching tracking number with which to label the three-dimensional object and link it to the written comment. The user would describe the object—in text and by

³¹ See Shawn Kerrigan et al., *Information Infrastructure for Regulation Management and Compliance Checking* (paper delivered to National Conference on Digital Government Research, Boston, May 21-23, 2001), available at <http://www.digitalgovernment.org/library/library/dgo2001/DGOMAC/MEDIA/KERR>. PDF; see also REGNET/REGBASE (hosting the Regbase project, an information management framework for checking compliance with environmental and accessibility regulations), at <http://eil.stanford.edu/regnet/> (last modified Apr. 1, 2004).

uploading a digital image—so that other users might have an approximate idea of what has been submitted. The object would arrive at the agency's docket office with the attached tracking number to allow the rule writer to have the full benefit of seeing and feeling the depth of tire tread or the shape of the door-opening and to tie that visual evidence back to the original written comments supporting it. Naturally, such a feature makes sense for agencies that typically receive or would like to receive non-documentary evidence.

Providing interfaces for the submission of supporting evidence informs the rulemaking process but raises the risk of accidental distribution of non-public materials over the Internet. This could create a disincentive to participation in the process and delegitimize online rulemaking, driving participants off the Web and back to paper. However, technology design can also help improve the handling of confidential business information (CBI),³² such as trade secrets, critical infrastructure information,³³ as well as copyrighted materials, all of which may be included in the regulatory docket or in a comment but which are not subject to disclosure under the Freedom of Information Act.³⁴

2.2.6. COPYRIGHT AND CONFIDENTIAL COMMENTS

Therefore, another area of innovation is to make it easier to include relevant confidential and proprietary information to inform a rulemaking without risking inappropriate or illegal dissemination. This innovation might foster better participation both by offering the security that is an incentive to participation and additional sources of data to inform it.³⁵ One simple innovation is to amend the comment interface to allow the user to designate an attachment as non-public CBI or critical infrastructure information by means of a drop-down menu. Once designated, that data could be encrypted and transmitted

³² See Freedom of Information Act, 5 U.S.C. § 552(b)(4) (2000) (providing that CBI is exempt from Freedom of Information Act disclosure).

³³ See *id.* § 552(b)(1)(A) (providing that such information is exempt from Freedom of Information Act disclosure).

³⁴ See *Doe v. Chao*, 306 F.3d 170 (4th Cir. 2002), *aff'd*, 504 U.S. 614 (2004) (suit by coal miners against the Department of Labor for accidental disclosure of social security numbers and benefits information).

³⁵ See Paul M. Schwartz, *Privacy and Participation: Personal Information and Public Sector Regulation in the United States*, 80 IOWA L. REV. 553, 566 (1995).

to the relevant official but not made available to the public directly. Instead, the viewing public would see that an attachment had been provided, the title of that attachment, and a note that the material was non-public CBI. Thus transparency in the process would be maintained while safeguarding confidentiality. A user could further specify the copyright treatment that should apply to a given work by identifying the holder of the copyright and the name and e-mail address to which one must apply for permission to redistribute the information. As in the Creative Commons system,³⁶ users could select from among different licensing regimes to apply to work posted online. With a few clicks, the Creative Commons, a non-profit organization devoted to providing alternative, more flexible, and easy-to-use copyright licenses for digital works, makes it possible for an author to apply a license indicating whether a work may be freely copied, whether attribution is required, whether commercial use is permissible, and whether derivative works may be made. These licenses appear both as easy-to-read icons and as digital "meta-tags" labeling the work in machine-readable code. Such a scheme should be adapted for submissions to government agencies and made directly available through the e-rulemaking website.

2.2.7. THREADED COMMENTS

In addition to having the option to sign onto a particular comment in order to reduce the number of new comments filed, Web technology can be employed to enable commenting on comments already submitted. Before turning to the question of new on-line discussion methodologies, it would be a simple step on the list of inexpensive innovations to offer the option of replying to another comment in place of filing one's own comment. This innovation would provide a mechanism for greater deliberation and responsiveness even in the context of the traditional written notice-and-comment process. This innovation would also reduce the quantity of comments by creating relationships between them and grouping comments with replies as a linked discussion of a single idea. Comments and reply-comments would be presented in a threaded format, and the comment would link to all responses to that comment. Similarly, each response would link back to the original comment and to other reply-comments. The viewer (whether the rule writer or a member of the public) would have the option to view the comments and replies ("thread") as connected

³⁶ See Creative Commons, at <http://www.creativecommons.org> (last visited Apr. 1, 2004).

("threaded") text. Alternatively, the user could view the set of comment-and-replies represented as a graphical image showing the comment and the constellation of reply-comments surrounding it, enabling easier and more intuitive navigation of the information landscape. That graphical image might indicate, by color-coding, the number of times particular threads have been read.

2.2.8. NARRATIVE STYLES

The substance of comments can be further categorized as types of comments in ways that undermine the "expertocratic" discourse and facilitate the inclusion of nontraditional but useful comments. To promote the participation of non-experts and less well-structured and well-funded organizations, the new interfaces could enable a commenter to tell a relevant story supported by historical and ethical arguments. The tools could allow the participant to label or color-code the comment as a "narrative/story comment," for example. Another commenter might submit and label a brief supported by legal precedent and another a scientific report. Explicitly making space available for alternative discourses while labeling them validates such comments and simultaneously enables the rule writer to recognize relevant differences between them and to read scientific, legal, political, and ethical arguments at appropriate points in the process. Users should be able to place a comment in more than one category if it contains both legal and scientific data, for example, and even to suggest new categories. By identifying the types of supporting arguments, it becomes easier to route the comment to the reader most qualified to assess the data. There is a risk that segregating the comments by style could lead to one type being more highly valued than another. That risk, I would argue, is preferable to having a hodgepodge of equally useless comments largely ignored by the rulemakers, except to the extent necessary to comply with the APA.

2.2.9. VISUALIZATION TOOLS

If done properly, more sophisticated visualization tools³⁷ will eventually be worth integrating into the comment process. Such tools include those that aid in mapping public preferences, graphically capturing and charting viewpoints, quantitatively analyzing inputs, and

³⁷ For example, the graphical decisionmaking tool, Virtual Workroom, and other tools designed by Professor David Johnson of the New York Law School.

enabling the regulator to make sense of the data. Imagine being able to see who is participating in a rulemaking process on a map that sorts comments by industry or background. Imagine comments being charted on a scatterplot so that participants can visualize where different arguments lie and how they are clustered. Or imagine visualization tools³⁸ that show how a random group of commenters felt about a proposal.³⁹

3. INNOVATIONS: NEW METHODS FOR RULEMAKING

While the speech tools proposed in Part Two enhance participation by improving upon existing interfaces, the second set of innovations discussed in this section attack the communicative processes of rulemaking. These reforms are more methodological than technological. They are designed to address a different question: As we inquire about changing the tools, ought we to rethink the process of interpersonal communications in order to create more participatory and engaged communities of rulemaking practice?

This Article proposes transposing established methods for conducting citizen policy juries to the Web and augmenting these well-developed methodologies with technology. All the illustrative models are based on a normative preference for deliberative, small group discursive methods that offer a crucible to transform the private prejudice of diverse participants into informed, public reason.

I want to explore, through description of specific methodologies, how information and communication technology might be employed to innovate on existing participation methods. Instead of desultorily transposing the notice and comment process to the Web, agency officials should leverage technology to build the skills and know-how for participation through more effective methods. It is not enough to have tools; also needed are the methods that transform them into "speech tools." The interpersonal processes of rulemaking need to be translated into a new design for the digital environment. Incremental improvements can be made to the existing web-based interfaces, but moving rulemaking into cyberspace presents an opportunity to experiment with new forms of participation – new methods of dialogue

³⁸ See Daniel C. Esty, *Environmental Protection in the Information Age*, 79 N.Y.U. L. REV. 115, 163 (2004) (Advances in visual display technology have yielded beneficial results in environmental regulation, and in scientific fields generally).

³⁹ For such a proposal in the classroom, see *Susan Crawford Blog: Class Design*, at http://scrawford.blogware.com/blog/_archives/2004/1/15/13982.html (Jan. 15, 2004).

and decision-making – that may now be practicable with information technology. New models can be institutionalized in an e-rulemaking “toolkit” and mapped into the design of its code.

By having standard, but not uniform, models for dialogue, participants can manage communication to achieve necessary outcomes.⁴⁰ Participation is fundamentally a dialogue process that reflects human relationships. Participation depends, therefore, on effective methods of communication to realize it. Managing documents and organizing paper are necessary to inform those processes but should follow from the dictates of coordinating people and their ideas. Any e-rulemaking toolkit should make it possible for government and citizens alike to create and manage rulemaking-related conversations.

The Web is still too new and our experience with it too little to know the best way to organize human interactions around complex issues on-line. We do not have a great deal of analytical understanding of which are the best practices for citizen participation off-line. As a result, we do not yet know for certain which practices will translate successfully to the Internet.

But there are methodological paradigms from civic life that offer documented models for consulting citizens on complex and contentious scientific subject matter. They share much in common, as do all dialogic processes for decision-making, but these models are precisely that. They are replicable and scalable small group dialogue models for conducting public participation. For example, the Danish have a well-developed model for ongoing citizen consultation for the creation of science and technology policy (a model that has just been adopted in the United States in the context of nanotechnology policy). In the United States several non-governmental organizations have developed and used novel approaches for consulting the public on the local level. I want to argue for experimenting with these models on-line, evaluating the results and, eventually, implementing the software to replicate these and other methods in the e-rulemaking toolkit.

The point is not to prescribe the best practice but to illustrate possible methods for testing. By entailing precise methods for running consultative exercises, these off-line methodologies might translate well into technologically-enabled speech tools for e-rulemaking. It is also worth adding at the outset that these models can be used both by

⁴⁰ See Douglas K. Smith, *MAKE SUCCESS MEASURABLE!: A MINDBOOK-WORKBOOK FOR SETTING GOALS AND TAKING ACTION* (introduction at xii) (Wiley 1999) (discussing the need for measurable outcomes to determine best practices).

agencies to do consultation and offered by agencies to the public as speech tools for running their own structured communications.

The difficult translation process of moving dialogic methodology for policy juries from real space to cyberspace necessitates, first, articulating the desired outcomes of the process. In order to determine whether a particular interpersonal method “works” and constitutes a best practice to be embedded in the tools, we need to know what we are trying to achieve. Outcomes are not the same at each point in the rulemaking process. Public participation in rulemaking involves three primary practices. First, it involves identifying and defining the problem; second, participation requires deciding on a course of action, preparing a draft rule, and achieving consensus around it; and, finally, the solution must be implemented. Making participation more effective and manageable means something different at each stage.

The aim of the initial phase of rulemaking is to identify and define the particular social or economic problem at issue and begin to weigh the costs of competing policy solutions. There needs to be a fluid give and take of information and discussion at this point. The goal of the second stage is to achieve a workable and legitimate solution based on a wide-range of public input. This public comment phase must also be free of abuses such as spamming and defaming that might create a disincentive to participation. The third phase aims to build consensus around the solution and promote compliance. It provides an opportunity to create a community of practice around rulemaking areas. It is important to move away from meaningless categories defined by statute and toward thinking about designing communications methods to serve the goals at each stage of rulemaking. Only then can the best methodological practices be identified and mapped into the code of technology and eventually benchmarked for success.

3.1. PHASE 1: METHODS FOR DEFINING THE PROBLEM

At the outset, the agency needs to obtain helpful and meaningful ideas from diverse audiences who may have differing backgrounds. These include scientific and subject matter experts, affected stakeholders, and interested but inexperienced citizens. Technology can help the agency to launch the citizen participation process early on, before the agenda is finalized and before resources and political will are invested in a single policy and a particular draft. Rule writers can seek public input earlier in the process when it may be of greater use to them. The chance to participate in setting the agenda and having a say in the proposed solution also creates new incentives to the public for participation. The agency can articulate its priorities early and therefore channel citizens’ investment of time and effort into

participating in ways that are useful for public policymaking. Or, the public can push back and help the agency to re-think its agenda.

3.1.1. APPLICABLE OFF-LINE MODELS

To manage efficient deliberative dialogue at this stage, agencies should eschew an unstructured comment process in favor of an organized consultative process with clear rules and measurable outcomes. Non-profit groups, schools, local governments, and other community and issue oriented organizations often use the **National Issues Forum (NIF)** (<http://www.nifi.org>) dialogic methodology as a tool to organize deliberations on important national issues. NIF produces case study books, including moderator guides and agendas for discussion designed to enable these discussions. The goal of the National Issues Forum is to help diverse members of communities deliberate about real world issues and to find a shared sense of direction before making decisions.

In the NIF, groups are organized into either small circles, typically of 8 to 10 people, or larger group forums that meet in a central location. Participants are provided with balanced background materials that frame the issue at hand and present different views on an issue as a starting point for discussion. In the first session, the moderator facilitates a review of the background material. In a subsequent session participants discuss different positions on the given issue. In larger NIFs the organizer often administers a pre- and post-discussion survey to solicit reactions to different statements of the problem. Though the NIF format is often used as a method to achieve consensus on an issue, it need not be and can serve, instead, as model for successful deliberation on a difficult policy issue of national import.

The moderator documents all that happens at the forums. The goal is to get a sense of the public voice and a general direction for public action. In addition, NIF provides a space for interested individuals to work individually or together to help remedy a public problem. Moderators from around the country report their forum results. These results are compiled and posted on the website for each issue.

Whereas the National Issues Forum might be a worthwhile model for organizing stakeholder discussion, agencies might look to another model, the **Study Circles** (<http://www.studycircles.org/pages/hap.html>), for an example of how to conduct citizen consultation. Administered by the Topsfield Foundation of Connecticut, Study Circles has been the model employed in over 200 communities running deliberative processes. In a Study Circle 8-12 participants commit to engaging in structured, moderated dialogue according to a set agenda for at least four two-hour sessions. The organizing

principles of a Study Circle are rooted in deliberative democratic theory and are designed to foster the dignified public airing of reasoned views with diverse participants. The process is designed to enable, through discourse and dialogue with pluralistic participants, the articulation of policy options, an exploration of how others view a problem and its solutions, and the talking through of the options to find common ground, even where disagreement is rife.

Study Circles depend on moderation to ensure that the group sticks to the topic and to the agenda while maintaining a productive and civil tone. Each session of a Study Circle is designed to focus discussion on a specific part of the larger problem.

For example, with the League of Women Voters and University Women, citizens of a community in Oklahoma sponsored a Study Circle called "Balancing Justice." The purpose of the forum was not to make definitive policy recommendations or to achieve consensus, but to stimulate grass roots discussion. Interested participants met in groups of eight over a three-week period to discuss different problems facing the criminal justice system. Groups contained people from all professions and income levels, including people that are involved in law enforcement and justice. The small planning committee decided the sessions would focus on the issues of rehabilitation, punishment, and deterrence. After all the topics were discussed, each group ordered and submitted a copy of what they thought were the most important issues, as well as some suggestions about how to address them. This typical Study Circle then created a report from all the groups' recommendations.

Study Circles offer a well-defined and tested procedure for deliberation. The model has been successfully replicated hundreds of times. Social scientists have evaluated the results, providing useful analytical data for use in revising and refining the process.

3.1.2. MOVING THE MODELS ON-LINE

One can imagine translating the NIF, Study Circle, or analogous deliberation format to the Web for use in connection with advance planning for a rulemaking. These dialogue methods can be used to improve consultation with scientists and expert advisory committees as well as individuals. Moving these methods on-line would allow agencies to manage the consultation process and to "scale" their use to a wider audience. If embedded in software, such methods can be used by the agency, but also by organizations, stakeholder groups and other members of the community of practice wishing to organize group deliberations.

In earlier work, I have examined the basic features of on-line deliberation and described in detail **Unchat** (<http://www.unchat.com>),

a design experiment in building software for synchronous deliberation on-line. Unchat enables the translation of deliberative methodologies into the on-line space. It embeds theories of communicative action into the architecture of the tool. The software permits a small group (up to 32 in one room) to engage in a structured moderated discussion via the Web. Conversational rules are embedded in and enforced by the software itself. But, unlike an ordinary discussion tool, Unchat lets the group itself decide on those rules and even be able to vote for new moderators at specified tenures. This so-called "self-moderation" system allows for structured deliberation while maintaining a system of participatory governance by the group. In addition, in an Unchat session, participants see themselves seated around the visual conceit of the table allowing participants to have a shared sense of the group. Unchat is ideally suited to instantiating NIF, Study Circles, or Consensus Council methodologies on-line.

Harvard's Berkman Center for Internet and Society has pioneered its own discussion software tool, the **H2O Rotisserie System** (<http://h2oproject.law.harvard.edu>) that can be used to port these methodologies to the Web. Designed to improve upon traditional threaded messaging systems for classroom use, the Rotisserie offers a tool-based method for structured on-line discussions. Unlike Unchat, which mimics the immediacy of real-time conversation, Rotisserie is a semi-synchronous system. It also structures the conversation to ensure better timing and flow. In this method, the discussion is broken up into rounds. While users can post messages at anytime, they are not published to others until a round closes. "This structure allows users to put significant thought into their responses rather than competing with other participants to post first," writes the Berkman Center (<http://h2oproject.law.harvard.edu>). Also to ensure discussion by all, the system distributes at least one other user-comment to one other user. Because no one in the group knows another's positions until after having posted his own, open idea exchange may be facilitated.

E-rulemaking software should offer a range of tools, like Unchat or Rotisserie, which transpose different discussion methodologies on-line and enable participants in the process to create policy juries. While the tools will be available to interest groups to convene discussions about rulemaking policy, the agency can initiate its own consultations to help it in setting the agenda for rulemaking policy as well as discussion calendars for draft rules. For each session, the agency would publish a detailed agenda and guide of discussion. Rulewriters might choose to follow the same discussion format – as these methodologies prescribe – in order to ensure outcomes that can be compared and evaluated and to ensure that groups stay on topic and maintain civility.

Agency officials would not prevent anyone from participating but would request of all those who choose to participate that they commit to the work required of them in this deliberative process. For those unwilling to participate in all the sessions or to inform themselves adequately, other avenues of input will be available, such as the traditional "click here to comment" process. Whereas there should be no legal rule (and therefore no free speech problem) restricting participation, the culture cultivated within each discussion circle would encourage conformity with the deliberative social norm. The tools should be designed to encourage a sense of belonging to and participation in the group.

Agency officials, professional facilitators or citizens themselves empowered by software will act as on-line moderators to guide consultative discussions. Members of each discussion group might take turns running the dialogue, sharing the responsibility and the control, as in Unchat. Whereas these discussions would take place via the World Wide Web, the Web could serve as a coordinating point and information repository to organize face-to-face forums on a local level.

AmericaSpeaks (<http://www.americaspeaks.org>), which offers a format for deliberation designed to elicit feedback from thousands of people at a time in face-to-face consultations, has partnered with a company called **WebLab** (<http://www.weblab.org>) to conduct on-line consultations and sort people into small group discussion circles via electronic bulletin boards.

AmericaSpeaks, like Study Circles or National Issues Forums, offers a tested methodology for managing and organizing public feedback. Because these methods are democratically organized and replicable across a wide number of participants, and they all enjoy a documented track record, they merit attempting as Web-based citizen jury models. These methods can be built into the software for rulemaking. Like WebLab, Unchat, or a weblog, these discussion processes, if properly coordinated, can run without centralized control. This reduces the workload and better enables participation to flourish as a self-governing process without the time-consuming management by rulemakers. For example, "Click Here to Set Up a Study Circle" would walk the citizen through the fully automated planning steps of producing a small group deliberation on policy.

3.2. PHASE 2: METHODS FOR PROGRESSING FROM DRAFT TO FINAL DRAFT

While the first phase is concerned with gathering information to understand the problem, the second phase centers around the creation of a draft and soliciting comment on it. At this stage in the process the desired outcomes are different. Now, rather than soliciting

information widely, the agency needs to communicate its draft – and the nature of the information and the choices involved – to the affected and interested public. The public needs to provide feedback on the choices in the draft. That feedback has to reach the persons actually writing the rule. The regulators and the public use this opportunity to understand the draft and anticipate the consequences of the language and policy choice embodied therein. Again, it is not necessarily consensus that is sought at this point – although it may be useful to get buy-in for the draft. The outcome here is better communication, obtaining any information relevant to reforming the draft and communicating that information to and from the right sources. But both the information and the communication need to be managed and targeted to produce the best possible draft. There is a risk with e-rulemaking at present, that because of the central collection of data, it may not flow to those who need it most in the agencies, and that it will be too overwhelming to be of any use. But the hope is that technology can be employed to make the desired communication more manageable and break up the bottleneck of decision-making within the agencies.

Once again, the agency needs to engage in this exchange with different publics with varying needs and levels of sophistication. First, stakeholders who will directly be regulated need to participate. This usually engages industry, industry associations, and those directly bearing the burden of compliance. Secondly, the draft may be of great interest to those who are not regulated directly but who are affected by the proposed rule and share in the burden of compliance. Whereas the first group might comprise car manufacturers responding to a rule on seatbelts, the second group might include all interested drivers, auto safety organizations, and relevant civil society groups, such as the Automobile Association of America. The same dialogic mechanisms described in connection with soliciting information in Phase 1 might be re-purposed to solicit feedback at this stage but with the agenda for conversation re-designed to focus on a constructive discussion of the draft. Rules of discussion would be added to ensure that participants comment on the text and that the conversation stays on topic. Incentives – such as awards or honors for helpful participation – might be employed to encourage participation that promotes the goals of the process. However, unlike in the first phase, here agency officials are probably more intimately involved in communicating the draft and its rationales to the public and engaging the public directly in consultation around the draft. At the same time, the need to promulgate a draft does not obviate the usefulness of ongoing discussion around the process.

At this stage, three other dialogic models, designed to produce feedback to a specific policy proposal, might also be employed: the **Danish Consensus Conference**, the **Jefferson Center Citizen Jury**, both transposable to the Web, and the **Group Report Authoring Support System (GRASS)**, (<http://www.wagenvoort.net/grass/introduction.php>) a web tool for drafting in contentious policy contexts. The Danish Consensus Conference is a tool used by the Danish Board of Technology, an administrative agency of the Danish government, and emulated by other institutions, to create a concise public policy statement on a complex technical issue.⁴¹ The method was also just mandated by the U.S. Congress for use in conducting citizen juries on nanotechnology policy.

Its aim is to give the regulators a sense of general public opinion on difficult scientific policy issues by presenting information to a small group of citizens for their reasoned discussion and feedback. The Conference method is designed, through consultation with a small group of interested citizens, to gauge the consensus view of the general public. The consultative group of about 16 people is selected from among the general, interested public (though no one with a direct tie to the issue may participate). Sometimes the consultative group meets for two days at a time over several weeks; other times the event is three consecutive days. The citizen group reads background information and receives presentations from a panel of professional experts with whom the participants interact throughout the Conference. At the end, the participants develop consensual conclusions, which are published. This is the "Consensus Conference" which gives ordinary people — lay people — the opportunity to assess a given technological development and make up their minds about its possibilities and consequences. The Danish Consensus Conference is specifically designed and often used to analyze broad, complicated, and difficult social issues such as cloning and abortion. It also helps bridge the gap between the public, experts, and politicians.

The Jefferson Center in Minneapolis, Minnesota has developed a very similar best practice model, which promotes the use of "citizen juries" to deliberate on specific policy proposals. For example, The

⁴¹ See <http://www.tekno.dk/subpage.php3?article=468&toppic=kategori12&language=uk>. The Danish Board of Technology has organized twenty-two such Consensus Conferences since developing the methodology in 1987. For more on the range of consultative methodologies employed, see <http://www.tekno.dk/subpage.php3?survey=16&language=uk>. Also - the Consensus Conference model was employed in North Carolina to gather citizen feedback on genetically-modified foods during a conference held on February 18, 2002 available at http://www.ncsu.edu/news/press_releases/02_02/44.htm.

League of Women Voters at Washington State University wanted to urge the state to institute a Citizen's Initiative Review (CIR) to examine ballot initiatives and give their findings to the public before the votes are cast. With the Jefferson Center, the League convened a citizen jury, where 25 jurors from Washington examined the CIR. The jury was chosen in response to a random telephone poll of the general population, and selected for pluralism and diversity based on political affiliation, education, background, and race. For two days, the group of 25 heard pro and con opinions on the CIR initiatives from policy makers and knowledgeable individuals. Often with Citizen Juries, initial votes are taken on which direction the group should focus its efforts. For example, on the second day of the Citizen Juries, the group voted 23-1 that they thought the CIR proposal merited further examination. For the next two days, they looked closely at the plan and adapted it. They took a vote on the fourth day, and decided 23-1 that they would recommend their adapted version to become state law.

As with notice, the consultation around the draft might transpose either of these methodologies to the Web. Because each method prescribes a set number of participants, a text to discuss, a prescribed number of sessions, and a thematic agenda, the rules can be embedded into software. The regulator can "click here to create a citizen jury." The technology not only automates the set-up of the consultative exercise and enables its replication with thousands of participants at decreasing marginal cost: it permits innovations on the original method. For example, it is easier with the Web to include a "visual poll" to take the measure of the group's opinion and represent it graphically to the group.

The GRASS (Group Report Authoring Support System), a web-based prototype developed by researchers at the University of Tilburg already translates a system for producing concise group-authored reports to the Internet.⁴² Using socio-technical design principles deriving from Habermas' theory of communicative action, they have built a software structure for collaborative drafting within the social context of stakeholder deliberations. By allowing the group to structure and visualize the problem, the arguments, and the report conclusion, the tool embeds a specific methodology designed to achieve an open forum where all views can be taken account of and consensus reached. GRASS would lend itself easily to adaptation for collaborative drafting of a rule or the authoring of comments by a set

⁴² See M. S. H. Heng and Aldo de Moor, *From Habermas's Communicative Theory to Practice on the Internet*, 13 INFO. SYS. J. 331 (2003).

of stakeholders. It is a prime example of a “speech tool” designed around a set of normative democratic values that employs a defined methodology to produce a useful outcome.

3.3. PHASE 3: MODELS FOR IMPLEMENTING THE RULE

The final communicative phase of rulemaking concerns educating the public and ensuring compliance with the rule. This phase impacts stakeholders being regulated, including affected industries, and the general public. Significant methodological innovation in this area should draw on experience with knowledge management to identify best practices for discussing compliance. While innovations here can focus on improving the interface, ultimately the goal is to change institutional power-structures, by using technology to allow citizens to take greater charge of their own compliance activities. Something as simple as a weblog can then be employed to organize structured discussions of compliance.

The methods employed at other stages can be adapted to facilitate conversation around compliance issues. This is a chance to innovate new methods of inclusive dialogue to conduct manageable, organized, and meaningful opportunities for collaborating on group authored compliance guides, which benefit from the input and experience of the affected public, not only the agency. Why have a single-authored static text when the community can teach itself compliance? With a mind-mapping tool, for example, the regulator can translate the rule into a step-by-step visual compliance diagram. The regulated community can then use a weblog to write about the community’s experiences with compliance. Weblogs will provide an opportunity for the community to trade ideas and share knowledge. The advice, ideas, and experiences with compliance may, in turn, be incorporated into the interactive compliance guides. Though there may initially be an “authoritative” agency-authored compliance guide, the resulting knowledge garnered from the community can transform the guide into a “WIKI,” or collaboratively authored encyclopedia of compliance. Making tools for self-publication available will make the discussion more transparent, so the agency is aware of which areas of compliance are proving to be most vexing to the public and where confusion is arising. Those responsible for compliance can find each other, find the weblog, and reduce the costs of compliance through increased exchange of information.

It may be possible, for example, to incorporate a Rotisserie system into the development of the compliance guides so that a wide-variety of voices can be heard in authoring the guide. Rating tools offer an alternative methodology for allowing the community to evaluate information provided in the process and agree on a group-authored text.

4. CONCLUSION

While these software innovations fulfill the basic statutory requirements, they go beyond notice and comment to produce more deliberative, group-centered participatory practice. These innovations embed theories of collective action into software architecture and tie both to the legal mandate of citizen participation. Agencies should be required pursuant to the E-Government Act to pilot various participative practices and gather the necessary data on them that will allow the Office of Management and Budget (OMB) to evaluate their success for citizen participation. Only by creating myriad yet standard dialogic methods can the OMB identify the best practices for participation and code them into the design of the e-rulemaking toolkit.

We need more innovative thinking in e-government about the development of e-rulemaking methods responding to the participatory potential offered by the Web. Technology can be employed to do consultation better, not with a single notice-and-comment process but by offering a range of dialogic methodologies and presentation interfaces to the community of rulemaking practice, drawing on developed methodologies from civic life that have been employed to enable participation by groups in decision-making processes. These experiences might be translated to the Internet, transforming them into speech tools, for greater scale and convenience. A growing number of nations⁴³ use technology to institutionalize citizen participation practices as a component of e-government. To squander the opportunity for democratic experimentalism⁴⁴ – this “laboratory for

⁴³ Canada is developing a federal policy on consultation and citizen engagement. Finland passed a government resolution that declares the government's aim to create opportunities for citizen participation. The Netherlands offers a policy aimed at “maintaining, enlarging[,] and improving people's involvement in matters of general interest by leaving or transferring responsibility to local authorities and citizen [sic] and their organizations.” All of these recognize government's enabling role. ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT (OECD), *CITIZENS AS PARTNERS: INFORMATION, CONSULTATION AND PUBLIC PARTICIPATION IN POLICY-MAKING* 42 (2001), available at <http://www1.oecd.org/publications/e-book/4201131e.pdf>; C. Kushner and M. Rachlis, *Civic Lessons: Strategies to Increase Consumer Involvement in Health Policy Development*, in NATIONAL FORUM ON HEALTH, MAKING DECISIONS: EVIDENCE AND INFORMATION 5 (Sainte Foy, Quebec: Éditions MultiMondes 1997), available at http://www.hc-sc.gc.ca/english/care/health_forum/contents.htm#vol5.

⁴⁴ Charles Sabel writes: “[B]ecause the norms of accountability it establishes are tied to disciplined practical activity, design through learning-by-monitoring provides a model for public rule making when the solution to collective problems can only be found by experiment.” Though

democracy”⁴⁵ – would not only miss a chance to draw on the wisdom of other disciplines and domains of research, it risks reifying administrative procedure⁴⁶ and de-legitimizing the electronic rulemaking process.

Sabel here is referring to rule making generally, rather than rulemaking as a term of art, he correctly theorizes the connection between democratic ideals and organizational design as a means to realize them. Sabel draws on Durkheim and Hayek and their understanding of organizational flexibility as central to the endeavor of democratic experimentalism. See Charles Sabel, *Design, Deliberation and Democracy: On the New Pragmatism of Firms and Public Institutions*, paper presented to the Conference on Liberal Institutions, Economic Constitutional Rights and the Role of Organizations, European University Institute, Florence (Dec. 15-16, 1995)(available at <http://www2.law.columbia.edu/sabel/papers/Design.html>); see also Michael C. Dorf and Charles E. Sabel, *A Constitution of Democratic Experimentalism*, 98 COLUM. L. REV. 267 (1998).

⁴⁵ *New State Ice Co. v. Liebmann*, 285 U.S. 262, 311 (1932) (Brandeis, J., dissenting) (“To stay experimentation in things social and economic is a grave responsibility. Denial of the right to experiment may be fraught with serious consequences to the Nation. It is one of the happy incidents of the federal system that a single courageous State may, if its citizens choose, serve as a laboratory; and try novel social and economic experiments without risk to the rest of the country.”).

⁴⁶ For example, DOT’s choice to use imaging rather than character-based technology for digitizing its dockets has locked the agency into the practices defined by that technology choice for the last decade. There is a high degree of lock-in associated with the implementation of a large-scale ICT project. Such technology projects are expensive and risky. Organisation for Economic Co-operation and Development (OECD), *The Hidden Threat to E-Government: Avoiding Large Government IT Failures* (Public Management Policy Brief, No. 8) (March 2001) (at <http://www.oecd.org/dataoecd/19/12/1901677.pdf>).